

NUCLEAR DIVISION NEWS

UNION
CARBIDE

A Newspaper for Employees of the Nuclear Division, Union Carbide Corporation

Vol. 1 — No. 20

OAK RIDGE, TENNESSEE

Thursday, November 5, 1970



ORGDP OVER THE TOP—The first Nuclear Division plant to pass its 1970 United Fund goal was the Oak Ridge Gaseous Diffusion Plant. Celebrating with a symbolic bag of money are, from left, drive leaders M. H. Randolph, H. M. Benton, W. E. Rooks, and W. H. Hildebrand.

Nuclear Division Near '70 United Way Goal

Ninety-two percent of the 1970 UF goal and counting!

Computer processing of cards reflecting employee giving through October 26 has already pushed individual totals for all four Nuclear Division groups toward record highs. Another report due this afternoon may push Carbide "over the top."

ORGDP Sets Pace

Through October 26, employee giving totaled \$273,409 of an overall \$297,000 goal. Some 83% of the all-plant employee cards have been processed.

This year's pacesetter, the Oak Ridge Gaseous Diffusion Plant, already has all cards in. ORGDP employees contributed \$46,128—110% of their goal of \$42,000.

The Division's General Staff is also completely finished. With all cards in, General Staff employee giving totaled \$17,059—100% of their \$17,000 goal!

Y-12 Nears Goal

The Y-12 Plant, traditionally a leader in UF drives, is on its way to another fantastic record. With only 73% of the cards processed, Y-12 is already at 99% of goal. Actual figures through October 26 show \$109,365.

And Oak Ridge National Laboratory has already topped its 1969 total, with only 86% of employee cards processed. ORNL's total so far is \$100,857.

The divisions per county so far are: Anderson, \$160,487; Knox, \$63,903; Loudon, \$10,320; Morgan,

\$4,564; Roane, \$30,818; and others, \$3,317.

Employees Praised

Nuclear Division employees have done a "great job" this year, reports all-plant general chairman W. H. Hildebrand. Cards were distributed, filled out, and returned promptly — "and with outstanding generosity."

"We went all out this year to use the excellent pre-drive publicity in *The Oak Ridger* and our plant papers," assistant chairman M. H. Randolph said, adding that the drive's beginning was timed especially for that purpose. And the net result will be a quicker drive, he expects. It looks like the drive will be completed within one month's time—right on schedule!

November 19 Meet For RESA To Have Quasars as Theme

Geoffrey Burbidge, the University of California, San Diego, will deliver an address on "Quasars" here as a 1970-71 lecturer for The Society of Sigma Xi and its affiliated society, The Scientific Research Society of America (RESA). The meeting is set for Thursday, November 19, at 8 p.m., at Jefferson Junior High School.

Geoffrey is a professor of physics at the University of California. He obtained his BSc degree in physics at the University of Bristol, England, his PhD at the University of London, and came to the United States as Agassiz Fellow at Harvard College Observatory in 1951. He next became a Research Fellow at Yerkes Observatory, University of Chicago; returned to England and held a research fellowship at the Cavendish Laboratory, Cambridge University, from 1953 until 1955. He then returned to the U.S. as a Carnegie Fellow at Mt. Wilson and Palomar Observatories and returned to the University of Chicago where he became an associate professor. It was here he became a member of the Enrico Fermi Institute for Nuclear Studies, and spent summers at the California Institute of Technology as Senior Research Fellow.

His interests are in theoretical astrophysics: the physics of radio galaxies, quasars, pulsars; nuclear astrophysics, abundances of the elements, the origin and synthesis of the elements; nuclear reaction in stellar interiors and supernovae; the rotations and masses of galaxies; violent events in the nuclei of galaxies. He is the author of more than 250 research papers, and joint author of a book, "Quasi-Stellar Objects" (with Margaret Burbidge), published in 1967.

Burbidge will attempt to interest people in quasistellar objects — both the observations and some of the theoretical ideas will be explored.

Local RESA members are welcoming the public to the November 19 meeting.

Versatile Laser Beam Enriches Our Lives

By GLENN T. SEABORG

Some of our great technological problems are often the smallest. For example, how can you drill a hole less than one-thousandth of an inch in diameter into a pre-

cious diamond? Or how can you operate on a retina without cutting into the eye itself?

A solution for these and many other problems has been found in



Dr. Seaborg

a unique tool called the laser. Laser stands for Light Amplification by Stimulated Emission of Radiation. This means, basically, that molecules are artificially "excited," and they emit photons which travel in an intense, coherent beam of light. This minute beam can carry as much as 500 million watts of power per square centimeter, and can be focused so finely that it can drill a hole as small as a ten-thousandth of an inch in diameter.

This has become an ideal method for drilling a small hole in a valuable jewel. Before the laser it took two days to drill a tiny hole in a diamond for wires; now it takes only two minutes. And because the laser can pass through transparent objects like the lens of an eye, it can "weld" a detached retina without requiring surgery.

Lasers also have some promising applications in communications. They have brought about a new field known as holography, which among other things can create true three-dimensional photographs.

The laser could help communications in a still greater way as a transmitter of information. This would be a very welcome application, since our current communications facilities are becoming overloaded. In a recent experiment, a single laser beam trans-

mitted all seven New York television channels. It is theoretically possible for one laser system to carry eight hundred million telephone conversations simultaneously — or four for each person in the United States.

The laser has many other applications in industry and basic scientific research, yet the first laser was operated less than 10 years ago. I'm sure there will be a great number of other uses that we cannot now foresee but that will allow that infinitesimal beam to enrich the lives of us all.

Awards for Coal Let to Local Firms

Ten contracts totaling more than one million dollars have been awarded to firms in Tennessee by the Nuclear Division. Nine of the contracts are for the provision of coal for Y-12.

The coal contracts call for a total of 86,640 tons, costing approximately \$902,000, to be delivered to the plant. Six of the firms are located in Oliver Springs. They are: Mill Creek Coal Company, which received a \$30,540 contract; Shemco, Inc., \$62,040; L & C Coal Company, \$63,000; H & B Coal Company, \$103,700; Walnut Mountain, Inc., \$122,280; and Gay Coal, Inc., \$65,160.

Others include the Buffalo Coal Company, Inc., Clinton, \$57,684; Jackson Mining Company, Clinton, \$277,039; and Phillips & Fritts Coal Company, Harriman, \$120,360.

In addition, the Noland Company, Chattanooga, received a \$149,042 contract for provision of a horizontal boring machine at Y-12.

Jaycees Encourage 'Letter to Hanoi' To Aid Prisoners

The Oak Ridge Jaycees are participating in a national program aimed at easing the plight of American prisoners of war in Southeast Asia.

The project, called POW-MIA — for "Prisoners of War—Missing in Action," calls on citizens to express concern to Congressmen, newspapers, and to Hanoi about the rights of imprisoned Americans under the Geneva Convention.

According to Y-12's Jim Jordan, the Oak Ridge Jaycee president, the chapter is collecting letters at the Jaycee state headquarters. He asks that individuals write letters addressed to the President of North Vietnam, Project POW-MIA, and send them to P. O. Box 448 in Oak Ridge. The Jaycees will take care of mailing costs to North Vietnam.

Jordan says that the project is stimulating thousands of letters throughout the state. "And don't underestimate their value," he adds. Since the program started, the North Vietnamese have increased the number of letters permitted from imprisoned Americans to relatives in the United States. "We feel genuine signs of concern by the American public will have an effect."

The American Red Cross and several other groups are also encouraging letters to Hanoi.

Purchasing Division Runs Gamut from Animals to Zirconium

By J. A. YOUNG

Matching wits with vendors is a commonplace challenge to people in the Purchasing Division. Avoiding conflicts of interest, making the best deal possible for the company while managing to obtain quality merchandise, and stretching a dollar sometimes to the snapping point . . . these and many others are the duties of purchasing men and women.

Harold Osborne, General Purchasing Agent, recently described the functions of the Nuclear Division's purchasing group as "unique . . . first in its size, and second in its function. We handle about 8,000 transactions a month . . . and last year spent about 90 million dollars," he stated.

And what do we purchase? Everything from the proverbial "soup to nuts," or as they like to put it . . . from animals to zirconium. Animals? Purchasing orders monkeys, rats, and even "clean" mice for research in the Biology Division. "Then we have to order food from all over for

them, as well as food for ourselves," Osborne grinned. Food purchases are made for our plant cafeterias.

'Heart' of Operations

A recent order for fingernail polish raised an eyebrow or two, until a purchasing agent found it was for marking some instrument dials! Ping pong balls were ordered (recreational equipment is ordered for the three plants through Purchasing) but not for their usual purpose, however. These table tennis balls were ordered for a flow meter in developmental work. Medical supplies are ordered for the dispensaries; precious metals are bought for research purposes. Even the printing service that produces the Nuclear Division News was negotiated through the Purchasing Division.

If the plants are the body of operations here, then Purchasing is its heart, for it is the buyers who supply the necessary tools and materials for all the work that has to be done.

Osborne describes operations as a two-level supervision type business. He administers the divisional team, with six purchasing agents under him, and 46 buyers working directly for the purchasing agents. Then there are the necessary support personnel — clerks, stenographers, secretaries and even a librarian who maintains the mountains of vendor capabilities data and specifications books.

Six Purchasing Groups

"One of our great tasks is the consultant-type contract, on a never-been-done-before basis," Osborne stated. "We order something from a vendor that's never been manufactured before. It's been going on around here now for 27 years! Folks are getting accustomed to our ordering things that don't even exist." This type of order requires special attention from the design folks working closely with the vendors, with purchasing agents acting as liaison men.

The six purchasing agents are responsible for various aspects of the procurement function. K. U. Berkau's group handles the review of subcontracts, requests for proposals, purchasing manuals, contract buyers' guides; property sales; reprints, consultant and research and development subcontracts and trainee subcontracts.

H. C. Wright and the people working under him coordinate materials replenishment; purchasing research; budgets; reports; systems control; records; library; mail services; reproduction; central materials specifications; central catalog; and Purchasing's buildings and grounds maintenance.

Electrical Equipment

Purchasing Agent J. O. Alexander and his men handle electronic instrumentation; electrical

equipment and supplies; electronic data processing equipment and computer services; accelerators; machine tools; electron microscopes; gauging machines and metrology equipment; destructive and non-destructive testing equipment and plastics.

Under J. C. Human's group falls the responsibility of lubricants; lab supplies; lab equipment and furniture; mechanical compress-

sors; X-ray equipment; Oak Ridge Gaseous Diffusion Plant special fabrication; heat exchangers; reactors; heaters; furnaces; automotive; heavy mobile equipment; gaskets; glassware optical; cafeteria supplies; janitorial supplies; forms; office supplies and furniture; speed reducers and utility systems equipment.

F. K. Koon and his buyers have

(Continued on Page 6)



CONTRACT CONTROLS—K. U. Berkau heads the part of purchasing which deals with the review of subcontracts, requests for proposals, purchasing manual and property sales, as well as many others. From left are E. T. Henson, M. J. Harris, Berkau, Mary McKinney, and Dorothy Farr.



MANAGES PURCHASING—General Purchasing Agent Harold Osborne receives a report from Bobbye Curtis, divisional secretary. Some 8,000 transactions are handled by the division each month, purchasing materials and services for whatever has to be done in the plants here.



ORGDP SPECIAL FABRICATION—Among other responsibilities are the purchasing of lubricants, lab supplies, X-ray equipment, automotive accessories, janitorial supplies, office supplies, and many others for the group at the left. From left are T. J. McCuen, R. L. Greer, W. D. Gooch, J. C. Human, Purchasing Agent; L. H. Kahler, Jean Quarles, partially hidden; Mary Morgan, and Martha Arp. In the photo at the right is a group which controls ORNL special fabrication, building materials, paint, gases, coal, clothing, office machines, and many other items purchased for use



here. It is headed by Purchasing Agent W. M. Reynolds, left. Additional personnel to his left are A. F. Johnson, Bea Barbee, J. W. Day, V. E. Davenport, Helen Murphy, N. W. Gatewood, C. R. Poston and Faye Collins. Other members of Purchasing were not present for the photo.



Y-12 SPECIAL FABRICATION—Among responsibilities for these purchasing personnel in the photo on the left are chemicals, medical supplies, engineering and chemical processing supplies, and others. From left are J. M. Campbell, B. H. Hinton,



Jean Carpenter, E. B. Edwards, R. C. Horton, H. W. Leonard, Brenda Armour and F. K. Koon, Purchasing Agent. Budgets, Reports, and Systems Control are some of the many responsibilities of this purchasing group (at right) for the Nuclear Division,

under the aegis of H. C. Wright. From left are B. N. Strunk, Janette Gray, G. Payne, A. B. Currens, R. J. Legan, Mary Foley, E. J. Allan, J. N. Willis, Wright and Rose Judd. Several employees from both groups are not present.

Chambers, Hensley, Kuykendall New Foremen in Y-12's Fabrication Division

The Fabrication Division has named three new machining foremen: Donald T. Chambers, M-Wing Shop; Herbert W. Hensley, Machine Maintenance; and Ernest L. Kuykendall, Jr., Alpha Five West Shop.

A native of Pioneer, Tenn., Donald T. Chambers lives at Route 17, Guinn Road, Knoxville.

He served in the U. S. Army from 1951 until 1953 and worked with General Motors Corporation, Toledo, Ohio, before coming here April 8, 1954.

Mrs. Chambers is the former Doris Marcum, and they have two small children Duane and Debra.

Herbert W. Hensley

Born in Knoxville, Herbert W. Hensley lives at 109 Aspen Lane, Oak Ridge, with his wife and two daughters, Charmaine and Kimberly. His wife is the former Charlotte Satterwhite.

Hensley is a veteran of both the U. S. Army and U. S. Navy. He served in the Army from 1937 until 1939 and in the Navy from 1941 until 1958. He worked as a machinist in the Norfolk Shipping Yards before coming to Y-12 December 30, 1959.

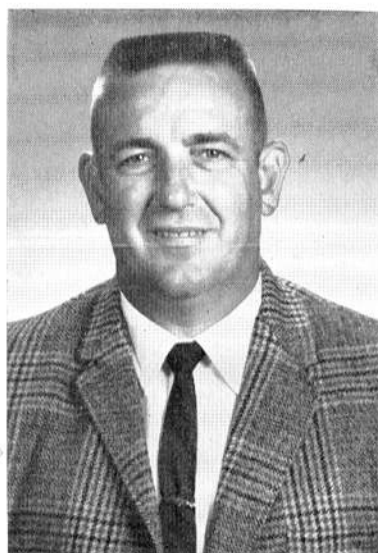
Ernest L. Kuykendall, Jr.

Another new machining foreman, Ernest L. Kuykendall, Jr. came here January 20, 1969 after a varied career. He worked with the Container Corporation of America and the Chicago Lathrobe Company, in Chicago, as well as the Sheet Steel Engineering Co. He has also been a minister.

Kuykendall lives at Route 3, Oliver Springs. His wife is the former Barbara Seavers and they have four daughters, Barbara, Cynthia, Theresa and Angelia.



Donald T. Chambers



Herbert W. Hensley



Ernest L. Kuykendall, Jr.



Congratulations to added Y-12ers who mark important dates with Union Carbide Corporation early in November.

25 YEARS

John W. Cantrell, General Can Fabrication Shop, November 5.

Andy P. Phillips, Materials Transfer and Packing, November 5.

Richard W. Ulm, Facilities Engineering, November 7.

Chester L. Estes, Metallurgical Development, November 15.

Carl E. Manis, Buildings, Grounds and Maintenance Shops, November 15.

Clarence L. Riggs, Special Services, November 16.

Stanley H. Cole, Production Assay, November 17.

20 YEARS

Roy C. McKnight, Engineering Mechanics, November 1.

Curtis W. Ridings, Quality Assurance, November 1.

Stephen G. Hull, Product Information Center, November 1.

Tripp S. Swindle, M-Wing Shop, November 3.

J. P. Ross, Jr., Area Five Maintenance, November 6.

Newton E. Hamby, Alpha Five East Shop, November 6.

Joseph L. Powell, Research Services, November 7.

Robert McKinney, H-1 Foundry, November 8.

Mitt H. Barker, Guard Department, November 13.

Eliga Tilley, Casting Department, November 13.

Hall Trivett, General Machine Shop, November 13.

Ross C. Pruden, Buildings, Grounds and Maintenance Shops, November 13.

Hobert L. Simmons, Research Services, November 14.

John R. Johnston, Electrical and Electronics, November 14.

James A. Coleman, Alpha Five Processing, November 15.

William E. Cagle, Jr., 9215 Rolling Mill, November 16.

Charlie L. Marlar, Jr., Chemical Services, November 16.

Joseph E. Spradlin, Jr., A-2 Shops, 9212, November 16.

Homer C. Day, A-2 Shops, 9212, November 16.

John D. Campbell, Mechanical Inspection, November 17.

Addie D. Lynch, Materials Testing Support, November 17.

15 YEARS

William J. Grubb, Machine Maintenance, November 2.

Lucille W. Pruitt, General Can Fabrication Shop, November 7.

Joe C. Feeman, Mechanical Design Engineering, November 7.

William O. Harris, Material Specimen Shop, November 10.

Tommy R. Justice, General Machine Shop, November 14.

Joseph R. Morton, Jr., General Machine Shop, November 17.

James D. Goodman, Alpha Five West Shop, November 18.

10 YEARS

Shirley F. Cook, Medical Department, October 17.

Betty G. Orme, Product Engineering, October 24.

Paul P. Febbo, Mechanical Manufacturing Design, October 31.

UF Drive Going Great at Y-12

Y-12 Plant employees are setting an all-time record in the 1970 United Way drive.

Computer cards processed through October 26 show that the plant is already at \$109,365 of the \$110,000 goal, with only 73 percent of the cards processed.

The totals below reflect cards processed through October 26, but the actual totals are higher now. Next issue, we'll give a complete up-to-date report—hopefully showing the plant way over our goal and each Division over the 100 percent mark.

Division	Chairman	%
Accounting and Budget	J. R. Martin	130
Assembly	L. D. Owens	106
Development	J. M. Schreyer	99
Engineering	J. H. Boyd	97
Fabrication	K. O. Pearson	106
Industrial Relations	T. J. Grause	104
Maintenance	D. D. Stroud	115
Materials and Services	G. D. Ellis	103
Metal Preparation	P. H. Trebilcox	99
Prod. Engr. and Scheduling	E. H. Krieg, Jr.	110
Shift Superintendents	T. C. Wilson	97
Superintendents	K. G. Kahl	71
	R. L. Wesley	
Technical	R. A. Tannert	101
Process Analysis	J. R. Gray	112
Guards, Local 003	G. F. McPherson	73
Bricklayers, Local 003	D. E. Floyd	103
Boilermakers, Local 33	J. M. Sinclair	14
	D. D. Meskirk, Sr.	
Carpenters, Local 50	F. D. Bradburn	120
Sheetmetal Workers, Local 51	R. E. Hester	7
Insulators, Local 52	A. A. Armour	No report
Building Services, Local 166	J. H. Bohannon	113
	W. T. Cole	
	R. C. Hill	
Chemical Workers, Local 252	R. H. McNabb	110
Iron Workers, Local 384	C. G. McQueen	113
Machinists, Local 480	J. A. Lane	90
	R. C. Johnson	
	C. F. Jenkins	
	W. E. Keller	
Teamsters, Local 519	J. V. Welch	32
	G. W. Smith	
	S. T. Burress	
Culinary, Local 623	H. S. McClellan	No report
Pipefitters, Local 718	R. H. Norman	94
	C. N. Cagle	
	F. E. Clevenger	
	R. E. Mellon	
Electricians, Local 760	W. P. Mattingly	122
Painters, Local 1805	R. L. Christman	145
Operating Engrs., Local 900	G. R. Beasley	73

Y-12's Miskell Gives Paper in West Berlin

R. V. Miskell, Numerical Control Engineering, headed a United States delegation at the International Standards Meeting on Numerical Control in West Berlin, Germany, October 27-30.

Meeting participants from approximately 24 nations discussed standards on codes, formats, vocabulary and control symbols for numerical control systems. Numerical control systems are used to operate various types of machines and instruments automatically by use of programmed tapes. The committee is seeking to promote the standardization of input and description of numerical control equipment manufactured throughout the world.



Miskell

Volleyball and Basketball League Set Closing Date

The Recreation Departments have announced a cut-off date for entries in the Basketball and Volleyball Leagues. The deadline is November 13, at 4:30 p.m.

Gyms will be available for practice after the closing date. Play in the two-plant leagues will get underway around the first week in December.

SAFETY SCOREBOARD

The Y-12 Plant Has
Operated
41 Days Or
1,516,000 Man-Hours
(Unofficial Estimate)
Through November 1
Without A Disabling Injury
SAFETY AT HOME,
AT WORK, AT PLAY

Y-12ers Present Papers In Boston, Washington

Two Y-12ers presented papers at national meetings this month. C. E. Knight, Fabrication Systems Development, gave a paper at the fall meeting of the Society for Experiment Stress Analysis in Boston, October 19. The subject of his paper was "Orthotropic Photoelastic Analysis of Residual Stresses in Filament Wound Rings."

The other paper entitled "Leak Detector Problems," by C. R. Fultz, was one of two papers presented at the American Vacuum Society's Vacuum Technology Division Panel meeting in Washington, D.C., October 20. Fultz's paper was entitled "Leak Detector Problems." He is in Y-12's Laboratory Development.

Both reports described technology developed at Y-12 in support of U.S. Atomic Energy Commission programs.



Fultz

Knight

Y-12 Pioneer

Old-time Y-12ers will be interested in the recent promotion of Charles D. W. Thornton. He has been named director of the Atomic Energy Commission's Division of Nuclear Materials Safeguards.

Thornton played a prominent role in the wartime construction of Y-12. He was responsible for the design, staffing and operation of the Chemical and Analytical Laboratories.



AWARD OF ACHIEVEMENT—George Rutherford, Environmental Control Engineering, has been selected the outstanding handicapped citizen of Campbell County. The Y-12er lost a leg in a farm accident in 1961. After graduating from the Training and Technology Project, he came here as a draftsman trainee.

Engineering's Rutherford Outstanding Campbell County Handicapped Citizen

George Rutherford, Environmental Control Engineering, has been selected as the recipient of the Award of Achievement, being named the outstanding handicapped citizen for Campbell County.

Rutherford, a native of LaFollette now living in Jacksboro, lost a leg in a farm accident in 1961. After taking barber training and working in a shop for 18 months, he became ill and surgery was required on his leg. Unable to work again, he entered the State Area Vocational School at Jacksboro, and later transferred to the

Training and Technology Project here in Y-12. He hired in as a draftsman-trainee in July of this year.

He admits that without the help of vocational rehabilitation he would be unable to work, walk, or even wear his artificial limb. He would like to help others in rehabilitation work.

The award is given to a handicapped person in each county of the State who has overcome a handicap and seeks to influence the employment of other handicapped persons. Rutherford be-



Riders wanted from Concord-Farragut area, via Lovell Road, to any portal, straight day. J. C. Taylor, plant phone 3-7510, home phone Concord 966-5163.

Ride wanted from Harriman to West Portal, straight day. Jerry Peddicord, plant phone 3-5068, home phone Harriman 882-3494.

Ride wanted from Sherwood Estates, Claxton area, to East Portal, straight day. T. D. Bagwell, plant phone 3-5445.

Ride wanted from Halls area, Knoxville, to West Portal, J Shift. R. D. Edwards, plant phone 3-7596, home phone Knoxville 687-7890.

Ride wanted or will join car pool from Sutherland Avenue, Knoxville, to Bear Creek Portal, straight day. Karen Thompson, plant phone 3-7178, home phone Knoxville 588-8472.

Ride wanted from Garden Apartment area, Oak Ridge, to North Portal, straight day. Plant phone 3-7739.

Ride wanted from 107 Ivanhoe Road, Oak Ridge, to Bear Creek Portal, straight day. Kathy Ride-nour, plant phone 3-5028, home phone Clinton 457-0674.

Big Mix-Ups Tie Raiders For Starlite's Top Spot

The Mix-Ups mixed up the lead in the Carbine Starlite Bowling set recently by moving up to tie the Raiders for the lead.

John Burgess proved a big hero recently for the Mix-Ups, as did J. R. Jones. Burgess rolled a 209 scratch, 214 handicap game; Jones 'one-upped' him last week with a 235 single game!

League standings follow:

Team	W	L
Raiders	18	6
Mix-Ups	18	6
Woodpeckers	16	8
Latecomers	15	9
Marauders	14	10
Wildcats	12	12
Comets	11	13
Pin Boys	10	14
Splitters	4	20
Rollers	2	22

comes eligible this month for the state-wide award.

Mrs. Rutherford is the former Betty Huddleston.

Funeral Held October 27 For William H. White

William H. White, Chemical Services, died October 25, in Oak Ridge, after a year's illness.

Mr. White came to Y-12 June 3, 1952, after working with Roane-Anderson and J. A. Jones in this area. The White home is at 126 Tabor Road, Oak Ridge.



W. H. White Survivors include his wife, Mrs. Nelda Rucker White, a daughter, Rebecca Kay, both of Oak Ridge; and a brother, J. Hoover White, Clinton.

Services were held October 27 at Martin Funeral Home, with the Rev. David Young officiating. Interment followed in Oak Ridge Memorial Park.

Inspection's J. Vassey Rites in South Carolina

John L. Vassey, Jr., Mechanical Inspection, died in Oak Ridge October 15. A native of Great Falls, S. C., Mr. Vassey came here September 14, 1953.



He was in the U. S. Navy from 1943 until 1946 and worked with the Fair Forest Finishing Co., and the Draper Co., both in South Carolina, before coming here.

His home was at 107 North Rutgers Avenue, Oak Ridge.

Survivors include two brothers, James Vassey, Charlotte, N. C., Paul Vassey, Spartanburg, S.C.; three sisters, Mrs. Ruth Maxwell, Mrs. Ella Mae Owens and Mrs. Ophelia Riffalarb, all of Inman, S.C.

Funeral services were held at Martin Funeral Home, October 16. Interment was in Sunset Memorial Gardens, Spartanburg, S.C.

Keith Rainbolt Dies After Long Illness

Funeral services were held October 18 for Keith W. Rainbolt in Oak Ridge at the Martin Funeral Home. Mr. Rainbolt died October 16 in a Knoxville hospital after a long illness. He lived at 132 Tacoma Road, Oak Ridge.



Rainbolt Mr. Rainbolt, who worked in Research Services, came here January 8, 1951, after working with Tennessee Eastman in Kingsport. He served in the U. S. Army from 1942 until 1946.

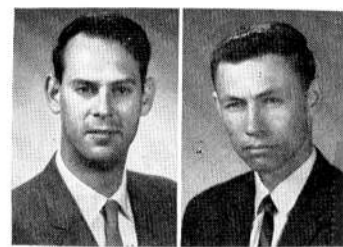
Survivors include his mother, Mrs. Myrtle Rainbolt and sister Mrs. Joan Woods, both of Martinsville, Va.; a daughter, Rebecca Jane Rainbolt, Chattanooga; his father, Arthur W. Rainbolt, Butler, Tenn.

Interment followed in the Oak Ridge Memorial Gardens. The Rev. Lebron Russell officiated at the services.

FIRE, THE KILLER

Fire kills some 12,100 persons—about one-third of them children—in the United States each year.

Paper at Philadelphia By Abbatiello & Thompson



Abbatiello Thompson

The causes of inaccuracies in machine tools were discussed by two Union Carbide engineers at a national meeting recently.

C. H. Thompson and L. A. Abbatiello, both of Y-12's Development Division, presented a paper entitled "Dimensional Integrity in Modern Machine Tool Processes" at the Instrument Society of America's International Conference and Exhibit in Philadelphia, Pa.

Y-12 has conducted extensive tests to determine the geometric characteristics that contribute to machine tool inaccuracies.

Rounders Maintain Slim Margin in C Alley Race

The Rounders squeezed by another week in first place, albeit by only one point, as C Bowlers get down to serious rolling.

Marley Cooper, Royal Flush, was a big hero recently, rolling a 227 single, 266 handicap game.

Last week it was Charles Baxter, Sunflowers, capping a 238, 252 single! J. E. Morgan on the top-spotted team flashed through with a 610 scratch series, too.

League standings follow:

Team	W	L
Rounders	20	8
Rollmasters	19	9
Jaguars	19	9
Fireballs	13	15
Parabusters	13	15
Badgers	13	15
Purple Pygmies	13	15
Instrument Engineers	12	16
Royal Flush	12	16
Big Five	12	16
Anodes	12	16
Sunflowers	12	16

Swingsters Take Classic Bowling League Top Spot

The Swingsters grabbed the first rung in Classic Bowling last week with a decided win over the Screwballs. The Rippers had led the league consistently, thanks to some fancy alley-work by Wayne Groppe.

Groppe rolled a 234 last week, a 257 the week before. On October 22, too, he put a 637 series on the record book.

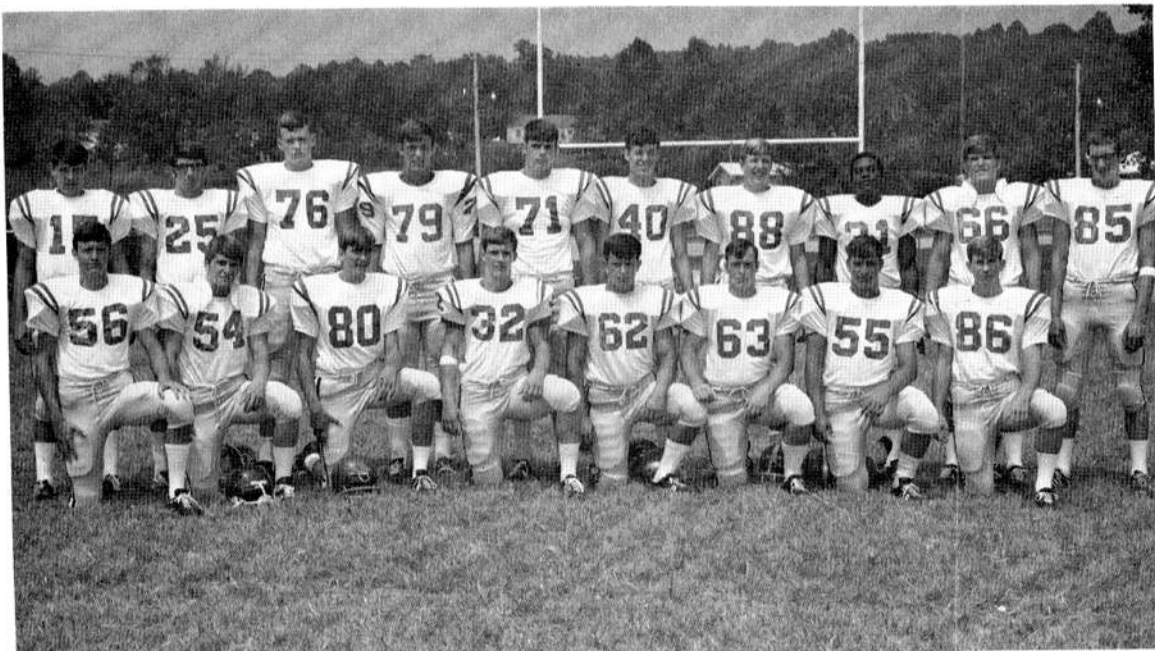
Team	W	L
Swingsters	25	11
Rippers	24	12
Bumpers	23	13
Has Beens	22	14
Playboys	21	15
Markers	21	15
Cubs	19	17
Eightballs	19	17
All Stars	18½	17½
Spintners	18	18
Rebels	18	18
Rojo's	18	18
Eagles	14	22
Screwballs	13½	22½
Smelters	9	27
Tigers	8	28

Rollers Make a Move To Tie Roses 'n Thorns

The Roses 'N Thorns share the spotlight now in the Mixed Bowling League, as the Rollers move up to tie the big team. The Rollers put the Cougars down for four last week.

C. R. Lively, rolling for his big Roller team, set the lanes afire recently with a game of 223 scratch.

Team	W	L
Roses 'N Thorns	22	10
Rollers	22	10
Hits & Misses	18½	13½
Goofers	18	14
Twisters	17	15
Friskies	15	17
Alley Cats	9	23
Cougars	6½	25½



Y-12'S CONTRIBUTION—Representatives on the Big Red Wildcat team for Oak Ridge High School from Y-12 families dress out above. In the front row are David Vest, 56 (L. D.); Don Lawhorn, 54 (Loren); Jim Noey, 80 (John); Allan Veach, 32 (A. M.); Randy Myers, 62 (C. L.); Skip Schill, 63 (W. J.); Rodney Bittner, 55 (G. G.); and Jeff McGhee, 86 (John B.). In the back row are Dave Moore, 15 (Emmett L.); Denny Guy, 25 (S. H.); Roger Higginbotham, 76 (F. A.); Ronnie Buck, 79 (Oran C.); David McCullum, 71 (J. K.); Mike Williams, 40 (W. E.); David Webb, 88 (H. C.); Rolin Thrift, 31 (H. L.); Jeff Creech, 66 (E. T.); and David Oliphant, 85 (George). Parents' names are in parentheses.

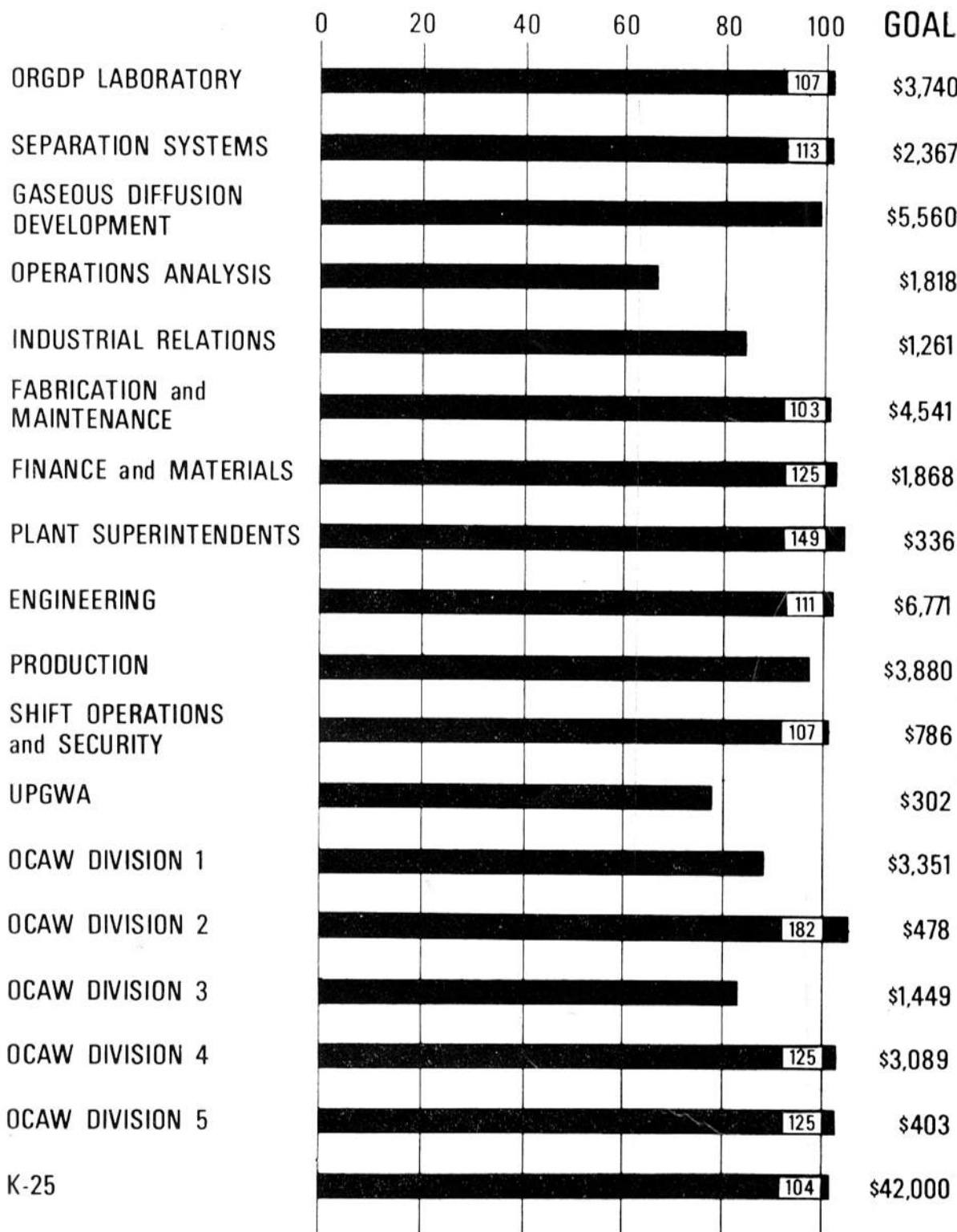
THE CARBIDE COURIER

Thursday, November 5, 1970

Page 3

K-25 UNITED FUND PROGRESS CHART PERCENT OF GOAL

Period ending October 22, 1970



Thanks and Congratulations

to the employees of the Oak Ridge Gaseous Diffusion Plant whose contributions of money and time have made the 1970 United Fund Drive the most successful ever. Not only did we exceed our goal of \$42,000, but we had a significant increase in payroll deductions and needed shares.

Again, congratulations and thank you.

W. E. Rooks

Chairman

H. M. Benton

Co-Chairman

President, United Plant
Guard Workers of America,
Local 109

Anderson and Shoemaker Recipients Of Latest Patent Application Here

Roger W. Anderson and James L. Shoemaker have received patent awards for their patent application on an important material used in the gaseous diffusion process. Anderson and Shoemaker are members of the Materials Development Department, Gaseous Diffusion Development Division. Their work includes research and development studies on the preparation and characterization of various materials.

Anderson served with the Signal Corps in World War II. He received a bachelor's degree in chemical engineering in 1948 from the University of Minnesota, and a Ph.D. degree in physical chemistry in 1963 from The University of Tennessee. He is a member of the American Chemical Society, Sigma Xi, and Phi Lambda Upsilon. He has been with the Oak Ridge Gaseous Diffusion Plant since 1948. Anderson and his wife, the former Martha Riley, and their daughter, Melissa, live at 933 Dartford Road, Knoxville.

Shoemaker was graduated from

Austin Peay State College in 1962. He served two years in the Army and was employed at ORGDP in November, 1965. Shoemaker and his wife, the former Sandi Greene, live at 211 Villanova Road, Oak Ridge, with their son Jamie.

Fishing Rodeo

There have been very few entries in the 1970 Fishing Rodeo. Now with Fall fishing in full swing, if you catch a big one — or even a medium size fish, send in your entry to the Recreation Office.

Merchandise prizes are awarded for the five biggest fish in ten species — Largemouth Bass, Smallmouth Bass, Striped Bass, Rock Fish (includes Hybrid), Walleye Pike, Sauger Pike, Crappie, Blue Gill (Bream), Muskie, Rock Bass (Red Eye), and Trout.

Fishing Rodeo entry blanks may be obtained from the Recreation Office in the front of the Cafeteria. Send in those entries — you might win.

Pollution and the Individual

The subject of pollution is very prominent in the news media. The word "pollution" involves the defilement of the air we breathe, the water we drink, the food we eat, and the very land on which we live.

We are all polluters to some extent, some more than others. Witness the large amount of trash carelessly thrown on every road

over which we travel. The people who discard this trash are not only polluters, they are litterbugs.

There are a number of things that we as individuals can do to reduce pollution. Helen Truett, secretary to R. J. Betts, Industrial Relations Superintendent, recently developed an interest in this subject. Helen says: "We often think of pollution in terms of something too big for just one person to do anything about. Pollution covers a host of things, and industry is not the only offender. There are many things each of us can do. In my own reading, I've

come across several ideas which have impressed me sufficiently that they have now become a part of my 'contribution' to pollution control."

Among her suggestions are: Paper products — buy white only; the colored papers take longer to

(Continued on Page 4)

SAFETY SCOREBOARD

OUR PLANT
Has Operated
827,000 Safe Hours
Through October 29

Since last disabling injury on August 31



PATENT AWARD RECIPIENTS—James L. Shoemaker and Roger W. Anderson received their patent application award transmittal letters from Dr. H. A. Bernhardt, Head of the Materials Development Department. From left are Bernhardt, Shoemaker and Anderson.

THE CARBIDE COURIER

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Engineering

By F. Dodge



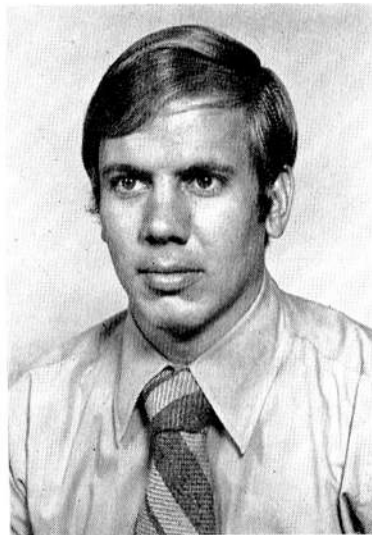
Ted Shapiro

Ted Shapiro recently was elected Vice Chairman of the Tennessee Society of Professional Engineers, Professional Engineers in Industry. He has been a regis-

tered professional engineer since 1964, and is one of approximately 35 engineers at ORGDP who have achieved this rating.

Shapiro recently represented Tennessee in the Southeastern Regional meeting of the National Society of Professional Engineers, in Williamsburg, Va.

Following his graduation from Boston University in 1944, Shapiro joined Union Carbide Corporation in New York, and the following year was assigned to the Gaseous Diffusion Plant. Since that time he has been associated with the various facets of chemical engineering design and studies of plant processes. He is presently head of the Chemical Engineering Section of the Process Design Department.



James E. Beavers

James Earl Beavers, Civil and Structural Engineering Department, has been awarded a teaching fellowship and tuition scholarship from Vanderbilt University in Nashville, Tenn.

Beavers came to Carbide in April of 1968 and returned after serving in the armed forces. He served with the U. S. Army Corps of Engineers two years, being stationed at Waterways Experiment Station in Vicksburg, Miss., as a research engineer.

A native of Center, Mo., he received his B.S. degree from the University of Missouri at Rolla and an M.S. degree in structural engineering at Vanderbilt University. His wife, Beverly, will join him in Nashville while he is on leave of absence from Carbide.

Women's Bowling

Rosa Wells, Betty Kemper, Mary Foley and Helen Hobson were the high score bowlers in the October 14 session of the Women's Bowling League. Rosa had a 208 scratch game and a 242 handicap game. Betty also had a 242 handicap game. Mary had the best series scratch score with a 526. Helen rolled a 612 handicap series.

Bowlers-of-the-Week in the October 21 session were Mary Foley, Marilyn Canterbury, and Judy Walker. Mary had the best scratch scores with a 211 singles game and a 557 series. Marilyn rolled a 252 handicap game and Judy had a 662 handicap series.

Standings	
Up-Towners	18
Wood Bees	18
Pay-Offs	16
Hot Shots	14
Spotters	10
Bowlettes	10
Pin-Ups	7½
Hits & Misses	2½

busy making elaborate plans for the big social event of the winter season for K-25ers. Full details will be carried in the next issue of the Courier.

Longer Week Ends Due for Everybody

A new calendar of holidays is about to start.

Beginning 1971, most Americans will be able to enjoy a minimum of five fixed three-day week ends each year. And this is how a recent bill signed by the President works out:

- Washington's Birthday will fall on the third Monday in February.

- Memorial Day will fall on the last Monday in May.

- Labor Day, as in the past, will fall on the first Monday in September.

- Columbus Day, scheduled to become a national holiday, will fall on the second Monday in October.

- Veterans Day will fall on the fourth Monday in October.

Note: The first three holidays in the list are official ones at ORGDP.

Initially, the law provides that these long week-end holidays will be observed by federal employees. However, many states are expected to follow the lead. Therefore, schools and many businesses will close in observance of these holidays. Thanksgiving, Christmas, and New Year's Day will not be changed.

So happy holidays, everybody, but if any one tampers with the Fourth of July and makes it the third or fifth or sixth—ouch!!

Wednesday

Bowling League

Four pins decided the total pin-fall in the match between the Demons and the Pirates on October 14. The last game was decided by one pin in the Wednesday League. Dick Starlin was Bowler-of-the-Week in this session with a 252 handicap game and a 671 series.

There was some very good bowling in the October 21 session, the Pirates had a 1081 game and a 3080 series while the Planners had a 1060 game and a 3095 series. Fred Johnsson had the best handicap score with a 260 and Charley Johnson had the high series handicap score with 671.

Standings	
Demons	22
Amps	14
Pirates	19
Mix-Ups	14
Sandbaggers	13
Rookies	12
Planners	12
Freezers	6

Bowling

Tuesday League

The Double X team had a solid 2916 handicap series to sweep the league leading City Slickers by four points in the October 20 bowling. The Atoms had games of 1025 and 1020 handicap pins and an excellent series of 3009 to take four points from the Possibles and go into a tie with the City Slickers.

Stan Stief took all the honors in this session and had a high scratch series for the season with 619 total pins. Stan had a 228-253 singles game and a 694 handicap series. Jim Parsons followed closely behind Stief with scratch games of 203, 216, and 164 for a fine 583 scratch series.

Standings	
City Slickers	19
Atoms	19
All Stars	16
Double X	12
Possibles	11
Full House	7

Drivers please note: Stop . . . Look . . . and Miss 'em.



QUICK CHECK—Billye Lee makes quick reference to an airlines guide to keep a fellow employee on his destined way. She is the travel clerk in our Finance and Materials Division, helping countless employees in their business travels.

Billye Lee Can Arrange to Send You Almost Any Place You May Wish to Go!

Whenever any employee has to travel on official AEC business and wherever he has to go, Billye Lee is the person to make all the arrangements. Billye is the travel clerk in the Cashier's Office, Finance and Materials Division. She is an authorized issuing agent for all licensed scheduled air carriers and she has arranged for employees to go to Japan, Germany, France, Italy, Spain, England, Puerto Rico, Canada and Mexico.

Travel arrangements not only include securing the necessary airline reservations but also include making hotel or motel reservations and arranging for ground transportation by rental car when the traveler arrives at his destination. When the traveler arrives back home, Billye helps him prepare his report of travel expense so that he can be properly reimbursed for his expenses while on the trip. She also assists prospective employees that we have invited to come to the plant

for an interview to be properly reimbursed for their travel expenses.

When asked about the most difficult part of her job, Billye indicated the biggest headache is working out airline schedules and fares, particularly each time that the country changes to or from daylight savings time.

Billye is a native of Lenoir City. She attended Draughton Business College, Knoxville, and has taken a number of courses at UT. She was first employed here in Oak Ridge by Monsanto in September, 1947, and transferred to ORGDP in March, 1948. Billye's home is on Route 4, Powell, and her mother lives with her.

Pollution

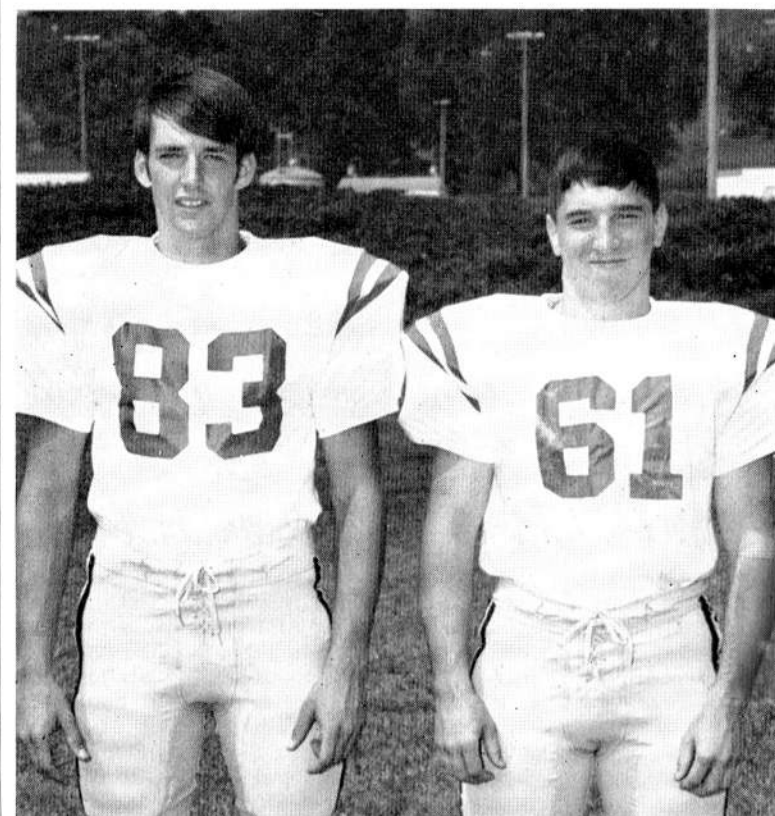
(Continued from Page 3)

dissipate; detergents — buy the biodegradables, they go back to clear water in a short time; gasoline — buy a lead-free brand; trash — do no burn, garbage collectors are available in both the city and the county; carry a litterbag in your car; if you smoke in your auto, use the ashtray.

No doubt there are a number of other things that we as concerned individuals can do to reduce pollution. The Courier will welcome these ideas and will be glad to pass them on to our readers in the hope that we can all become more anti-pollution minded. Send us your ideas on this vital problem facing everyone of us.

Christmas Dance

Save the night of Saturday, December 12. That is the date for the annual K-25 Christmas Dance. Fabrication and Maintenance Division employees are the hosts for this year's dance which will be held in the new Oak Ridge Civic Center. Committees are already



ORGDP MAKES IT—Our plant's contribution to the Wildcat squad this year at Oak Ridge High School is rather light, comparatively speaking. Only two sons of K-25ers appeared at the recent photographer's day festivities at Oak Ridge. At left is Steve Rowell, son of John D. Rowell; and Dwight D. Hart, son of John D. Hart. Good luck, Wildcats!

Glucagon

First Aid for Diabetics

By T. A. LINCOLN, M.D.

It had been an exceptionally busy day for Jimmy, a young diabetic. He had taken his usual dose of insulin before breakfast but had played football all day. After supper there were a couple of hours of television but he fell asleep and was sent off to bed early.

About 2 a.m., Jimmy's parents heard groans coming from his bedroom. They rushed in and found him unconscious.

Realizing immediately that Jimmy was having an insulin reaction, his mother hurried to the kitchen and got some orange juice sweetened with Karo syrup. She held the glass to his lips but he would not drink it. Quickly his father called an ambulance.

About an hour later, Jimmy woke up in the emergency room of the hospital after his physician had given him intravenous glucose. His reaction had been due entirely to a dangerously low blood sugar (glucose). Exercise had enabled his muscles to burn glucose more efficiently and with less insulin. As a consequence, he wound up with too much insulin that night.



Dr. Lincoln

Reactions Not Rare

Insulin reactions are not rare. Most patients with juvenile-type diabetes, meaning they absolutely require insulin, will experience occasional mild reactions no matter how carefully they manage their diabetes. Self-management is emphasized since no parent or physician can predict the precise needs of diet, insulin and exercise. The patient has to control his own diabetes with guidance from his physician and family.

Vigorous exercise is an essential part of the treatment of juvenile diabetes. Of course, exercise is only one factor which influences insulin need. Variations in food intake, emotional upsets and infections also may disturb diabetic control.

Hypoglycemia (low blood glucose) can occur in any diabetic of any age who takes insulin. Most hypoglycemic episodes are mild and amount to little more than nervousness, perspiration, trembling and hunger. When they occur at night, however, the symptoms may come on slowly and not awaken the patient.

For some strange reason, many diabetics who take insulin are not aware that glucagon is the best first aid treatment for severe hypoglycemia. This hormone can be easily administered by another member of the family. After a subcutaneous injection, the patient will regain consciousness, usually in 5 to 15 minutes. He then needs to eat something because the rise in blood glucose is temporary.

Prolonged severe insulin reactions can cause permanent brain damage. Although in most cases the extra 30 to 60 minutes required to get the patient to a hospital is not critical, it could be in severe cases. There is little excuse for depriving an insulin-dependent diabetic of this margin of safety. Any person can mix and give the glucagon shot in just a couple of minutes. It is inconceivable that other members of the family would be so squeamish that they could not give the injection in an emergency.

Glucagon is available on prescription and comes in a neat plastic box which contains a small vial with the diluent. Using an insulin syringe, the diluent is removed and injected into the powder and shaken gently. The glucagon is then withdrawn and given just like insulin.

When in the powdered form, glucagon has a long shelf life. It is reasonable in cost and even if never used, it is small price to pay for being prepared for an emergency.

Glucagon, like insulin, is a normal hormone. It is produced in the alpha cells of the pancreas while insulin is produced in the beta cells. It is part of the feedback mechanism which, in normal people, keeps their blood glucose within normal limits. Glucagon stimulates the breakdown of glycogen in the liver to form glucose which is released to the general circulation. Although it would be nice to say that insulin keeps the blood glucose from going too high and the glucagon keeps it from going too low, the physiology is immensely more complicated.

Glucagon is not an insulin antagonist in the sense of in-



AND THE RAINS CAME—Back in the dim, dark days of 1945, there came a rain storm, and Bear Creek flowed freely through Y-12. This is the scene on First Street, October 22, 1945. That's North Portal in the background. See anybody you know?

Astronomer Will Give Address to Sigma Xi

Sigma Xi's Fall Lecture will feature Dr. Morton S. Roberts, Assistant Director of the National Radio Astronomy Observatory, Green Bank, W. Va. He will speak on "A Radio View of the Universe," Monday, November 9, at 8 p.m. in Buehler Hall, the new chemistry addition on The University of Tennessee Knoxville campus. The public is invited.

Dr. Roberts received his Ph.D. from Berkeley in 1958. He is a recognized authority on the composition, structure, and history of galaxies, including our own Milky Way system.

Sigma Xi, an honor society for the encouragement of original research in all fields of pure and applied science, was founded at Cornell University in 1886. It had over 100,000 members and 175 chapters throughout the United States and Canada.

Interfering with the effect of insulin. Diabetes is not caused by an excess of glucagon. In contrast to diabetes where a lack of insulin causes the disease, there is no distinct disorder associated with a deficiency of glucagon. Glucagon is apparently not indispensable like insulin.

It is becoming clear that more mild diabetics need to be treated with insulin. The commonly used antidiabetic pills, such as tolbutamide, may not be adequate. Few patients will stick to the rigid diet vital for the proper management of mild diabetes. We may, therefore, be on the threshold of a return to insulin as the major therapy for all kinds of diabetes. Incidentally, many diabetics can control their diabetes with insulin at a cost of less than 15 cents a day.

Serious hypoglycemia will be a rare event in most diabetic patients treated with insulin. Having glucagon in the medicine chest, and another member of the family capable of giving it, removes the fear of an unmanageable nocturnal reaction.

It's Not Too Late

The American Red Cross Bloodmobile is in town today from 11 a.m. to 5 p.m. at the National Guard Armory off Oak Ridge Turnpike. Some 567 pints of blood are needed to maintain Anderson County's "blanket coverage" under the program. The Bloodmobile was also in town yesterday, with special hours—4 to 10 p.m. — specifically designed for the convenience of Nuclear Division employees and other working people. If you're on duty today, please call the Red Cross (483-0211) anyway and they will schedule you for a subsequent visit which does not conflict with working hours.

ACS Meet To Feature Famed Cosmetologist

November 6 will be observed as Ladies Night by the East Tennessee Section of the American Chemical Society. To suit the occasion, Hazel Bishop will address the section on cosmetics.

The lecture, which is open to the public, will take place at 8:30 p.m. at the Alexander Motel in Oak Ridge. A social hour will begin at 7 p.m., followed by a dinner at 7:30. Reservations may be made for dinner through R. G. Gaunder, Knoxville, or at Oak Ridge National Laboratory through R. H. Raridon, extension 3-1632.

Miss Bishop received a B.A. in chemistry from Barnard College in 1929, after a pre-medical course. The prevailing economic conditions led her to abandon her hopes of becoming a doctor and she went to work as a chemical technician. As a hobby she began an attempt to improve lipstick in the kitchen of her apartment. Three hundred and nine experiments later she found the solution to a feminine problem — a long-staying lipstick that did not smear.

'World of Atom' Adds New Series

A new series of booklets for junior high school students and teachers explaining nuclear energy and its uses is being offered by the Atomic Energy Commission.

The purpose of the series is to strengthen science education and to supplement the limited amount of nuclear energy information materials now available at the junior high level.

Already published in the new World of the Atom Series are "Atomic Pioneers" and "The Mysterious Box: Nuclear Sciences and Art." Other titles in the series to be published in the next 12 months include "Nature's Invisible Rays," "Preserving Food with Atomic Rays," "Atomic Energy and Your World," and "The Mystery of Matter."

"Atomic Pioneers," Book 1, is the first of a group of four biographical booklets that describes the contributions to atomic science made by 100 men and women over a 2,500-year time span. Book 1 covers the period from 5 B.C. to the middle of the 19th century. "The Mysterious Box" presents, in short story form, the nuclear methods used to establish the age and authenticity of oil paintings.

The World of the Atom Series complements AEC's Understanding the Atom booklet series which was begun in 1962 for senior high school science students and adults. That series has grown to 55 titles covering every aspect of nuclear energy. More than nine million copies have been distributed in the United States and abroad, mostly to requesting students, teachers and libraries. Several titles have been printed in French, Spanish and Italian.

Both series are illustrated and include a reference list of additional materials. The booklets are written by non-Government scientists, science writers and educators. "Atomic Pioneers" was prepared by Dr. Ray Hiebert and his wife Roselyn, authors of several children's books.



VARYING SUPPLIES—This group in Purchasing handles electronic and electrical equipment, computer services, machine tools, electron microscopes, and many other purchases for use here. They are headed by Purchasing Agent J. O. Alexander, standing. Seated from left, are E. W. Felte, J. M. Galyon, J. N. Kelley, D. W. Brown, R. L. White and B. E. Black.

Purchasing Division

(Continued from Page 2)
the responsibility of chemicals; medical; hand tools; publications; beryllium fabrication; valves; materials handling equipment; engineering and drafting instruments; chemical processing equipment and Y-12 special fabrication.

ORNL Special Fabrication

Under W. M. Reynolds and his buyers fall the following: pipe, metals; pumps; General Service Administration supplies; Oak Ridge National Laboratory special fabrication; safety equipment; building materials; paint; gases;

welding equipment; coal (Contracts totaling almost a million dollars were let recently for coal); clothing; turbines; insulated wire; office machines; landscaping supplies; bearings, belts, sheaves; and construction subcontracts.

Alexander, Human, Koon, Reynolds and Wright all share the responsibility of stores replenishment.

Whenever practicable supplies are ordered from GSA for the vast operations here. The GSA office in Atlanta supplies many of our standard items, Osborne explains.

Operations at the Paducah Gaseous Diffusion Plant do not come directly under our purchasing group here. "We establish policy for and act in an advisory capacity to their purchasing department," the general purchasing agent stated.

Flexibility Is Key

There are some 19,000 outstanding orders pending at all times around these parts. That's a lot of orders to keep up with . . . but Purchasing does it.

"Flexibility is the key to purchasing. There's never a dull moment around here. No two days are alike."

And the folks in Purchasing



PROPERTY SALES—A popular division of purchasing among Nuclear Division employees is Property Sales, administered by D. R. McCammon, reporting to Purchasing Agent K. U. Berkau.

like the challenge of their jobs. "It keeps us on our toes," they say . . . and apparently it does in their "of mice and men" work.

Note: The accompanying photographs do not include all Purchasing personnel. Many of those pictured are merely representative of groups involved.

Phileas Fogg's Fabulous Balloon Trip Opens New Playhouse Season Nov. 6

The Oak Ridge Playhouse opens its new season with a musical with "something for everybody," Mike Todd's adaptation of Jules Verne's "Around the World in 80 Days." Production dates are November 6, 7, 11, 12, 13, 14, 18, 19, 20 and 21 at 8:20 p.m. Matinee dates are 2 p.m. November 14 and 21.

Many Nuclear Division employees and members of their families are appearing in the spectacular production. Among them are Larry Owens and his wife Joanne; Steve Erwin, son of Joseph Erwin; Dolly (Mrs. Bill) DeLong; Linda Gambill, daughter of Wallace Gambill; and Bernadine White, daughter of Burnice Forrest, appearing as Spanish dancers, American Indians, Englishmen, Arabians, East Indians, and so on.

The plot revolves around Phileas Fogg and his obstacle-ridden balloon journey around the globe. In 1872 this was a bit of a feat, but Fogg succeeds, thanks to the help of many kind people, and the constant support of his valet, Passepartout.

"An Evening with Paul Crabtree" follows the musical.



PLAYHOUSE PLAYERS—Joanne and Larry Owens, Linda Gambill, back row, left to right; and Dolly DeLong, Steve Erwin, and Bernadine White, front row, join in the excitement of the Playhouse Production of the musical, "Around the World in 80 Days."



UNION CARBIDE CORPORATION

NUCLEAR DIVISION

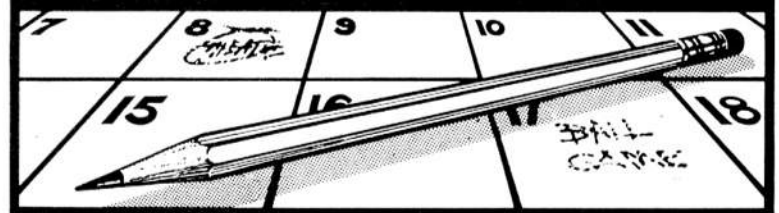
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CALENDAR OF EVENTS



TECHNICAL

November 5

Solid State Division Seminar: "Lattice Dynamics of Transition Metals," B. N. Brockhouse, McMaster University, Ontario, Canada. Conference Room, Building 3025, ORNL, 10 a.m.

UT-AEC Agricultural Research Seminar: "Application of Whole-Body Counting in Physiology and Toxicology," C. C. Lushbaugh. Conference Room, UT-AEC Agricultural Research Laboratory, 3 p.m.

November 6

Physics Division Seminar: "The Nuclear Shell Model in Terms of Pseudo-Spin-Orbit Doublets and Pseudo-SU(3) Coupling Schemes," K. T. Hecht, University of Michigan. East Auditorium, Building 4500N, 3 p.m.

The East Tennessee Section of the American Chemical Society will observe Ladies Night, with Miss Hazel Bishop as guest lecturer, at the Alexander Motel. Social hour 7 p.m., dinner 7:30, and lecture at 8:30. Open to the public. For reservations call R. H. Rariden, extension 3-1632.

November 9-11

Conference on Continuum Aspects of Graphite Design. Riverside Motor Lodge, Gatlinburg.

November 9

Fall Lecture, sponsored by The University of Tennessee Chapter

of Society of Sigma Xi: Dr. Morton S. Roberts, National Radio Astronomy Observatory, Green Bank, W. Va., "A Radio View of the Universe." Buehler Hall, UT Campus, 8 p.m. The public is invited.

November 10

Oak Ridge Section, The American Society for Nondestructive Testing, technical meeting: "Thermal Nondestructive Inspection," Fred W. Jarrett, Automation Industries, Inc. Oak Ridge Country Club, social hour 6:30 p.m., dinner 7, meeting 7:45. Admission \$2.50. (For reservations call Wilma Curtis, 3-5413, or Red Clowers, Knoxville 687-7110.)

November 11-12

Metals and Ceramics Division Annual Information Meeting. Morning session, Central Auditorium, Building 4500N, 8:45. Special afternoon session, East Auditorium, Building 4500N, 1:30.

Cancer Research Seminar: "Prognostically Significant Lymphoreticuloendothelial Response in Cancer Patients," Maurice M. Black, New York Medical College. First Floor Tower Annex Conference Room, Building 9207, 12:15 p.m.

November 13

Biology Division Seminar: "Fluorescent Labeling and Identification of Human Chromosomes," Mrs. Gunnel Licznarski, Institute for Medical Cell Research and Genetics, Karolinska Institute, Stockholm. First Floor Tower Annex Conference Room, Building 9207, 12:15 p.m.

COMMUNITY

November 6

The Oak Ridge Playhouse presents its first production of the season, Mike Todd's adaptation of "Around the World in 80 Days." Oak Ridge Playhouse, 8:20 p.m. Subsequent production dates are November 7; 11-14; and 18-21; plus matinees on November 14 and 21 at 2 p.m. Box office open November 4.

November 8

The American Association of University Women film committee presents "The General," one of the films currently being shown at the Buster Keaton Festival in New York. Robertsville Junior High School Auditorium, 3 p.m. and 7 p.m. Admission: Adults \$1; students \$.50.

VEHICULAR DEATHS

Motor vehicle accidents take more lives annually than any other major class of accident—home, public or work.

Nondestructive Testing Sets Meeting Tuesday

The Oak Ridge Section of the American Society for Nondestructive Testing will meet November 10 at the Oak Ridge Country Club. The dinner meeting starts at 6:30 with a social hour.

Fred Jarrett, district manager of the Automation Industries, will speak on "Thermal Nondestructive Inspection." Jarrett was formerly with ACF Industries, Albuquerque, N. M., as a test engineer in applied research and development, where he had extensive contact with personnel here.

Advance reservations may be made to Tuesday's dinner by calling Wilma Curtis, extension 3-5413; or Red Clowers, Knoxville telephone 687-7110.

NEW WARNING

Cigarette smokers in this country began reading a new and sterner health warning on packages, effective, November 1. The stronger wording now reads: "The Surgeon General has Determined that Cigarette Smoking is Dangerous to Your Health."